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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,997	07/02/2003	Richard D. Muratori	10559-077002/P7571D	1866
20985	7590	07/09/2007		
FISH & RICHARDSON, PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER BAUTISTA, XIOMARA L	
			ART UNIT 2179	PAPER NUMBER
			MAIL DATE 07/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/612,997	Applicant(s) MURATORI ET AL.	
	Examiner X. L. Bautista	Art Unit 2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-43 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/2/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).
Correction of the following is required: Claim 27 recites the limitation "...computer program...on a computer readable medium...including instructions...", which is not defined in the specification.
2. The claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. See MPEP § 608.01 (o).

Allowable Subject Matter

3. Claims 27-43 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Independent claims 27 and 40 have been carefully considered. Prior art of record fails to teach the combination of claimed elements including a method and system for providing a graphic display having an operational history of multiple execution threads from the same programmable unit and execution threads from a different programmable unit; the graphic display having an axis representing

progression of time, wherein a user is enabled to select a thread at a point in time on the graphic display and in response to the user selection, providing visual information about the selected thread at the point in time, as recited in claim 27; the graphic display having a scrollable window, wherein the time period display in the graphic display can be changed by scrolling the window in either direction of the axis; the graphic display also having a graphic identification of when a thread executes and when the thread does not execute, as recited in claim 40.

The Examiner's search reveal the relevance of Schultz et al (US 5,812,133) which discloses an industrial controller that provides a display of the execution of elements of a program for troubleshooting purposes. Schultz teaches that when a cursor is positioned on the image of a rung to be monitored, a histogram window is displayed listing the rung being monitored with its address followed by a time at which the rung was executed. While Schultz provides a display with an indication of a graphical element selected by the user together with a time of accessing of the address of the electronic memory corresponding to the identified graphical element when the address is accessed, this display is not taught nor suggested as being capable of displaying an area for receiving user input comprising selection of a point in time on the thread's history graph and for displaying information about the selected thread at the point in time.

Feitelson et al (US 5,877,764) discloses an input/output control window that

is created when a parallel program is executing. The I/O control window displays an array of graphical elements that are partitioned into groups and represent a task of the parallel program. Each partition has a graphical element that represents the I/O status of the thread and is called an I/O status indicator. Feitelson teaches that the user can open a text window on the screen by selecting a graphical element in the I/O control array partition representing the particular thread. Feitelson fails to teach or suggest an operation history of the thread being displayed as a graph including an area for receiving a user input comprising selection of a point in time on a thread's history graph for displaying on the graph an event indicator that provides an indication of an event that occurred during execution of a thread at the selected point in time.

Slingwine et al (US 5, 727,209) discloses a method that tracks a thread execution history to determine safe times for processing a current generation of data updates while a next generation of data updates is concurrently being saved. A summary of thread activity tracks those threads that have passed through a quiescent state after the current generation of updates was started. Slingwine fails to teach or suggest an operational history of the thread being displayed as a graph including an area for receiving user input comprising a selection of a point in time on the graph.

On et al (US 6,275,956 B1) discloses an integrated dynamic-visual parallel

debugging apparatus having a graphical user interface for displaying graphical views of the execution of multiple programs, including a thread/time view. On fails to teach or suggest that the thread/time view displays an axis representing a progression of time that enables a user to select a thread at a point in time and displaying information about the selected thread at the point in time.

Orton et al (US 5,465,362) discloses an interactive view system having multiple views for displaying threads of execution in multiple application programs and state information related to the multiple threads of execution. Orton fails to teach or suggest that the interactive views display an axis representing a progression of time that enables a user to select a thread at a point in time and displaying information about the selected thread at the point in time.

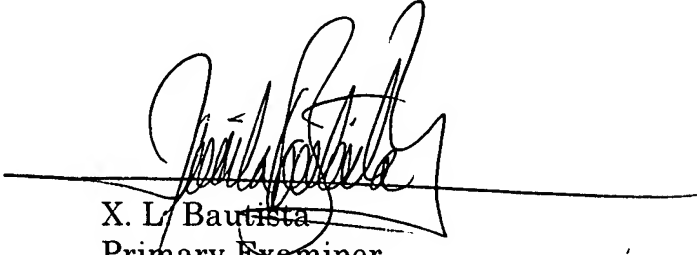
Conclusion

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to X. L. Bautista whose telephone number is (571) 272-4132. The examiner can normally be reached on Mon-Thurs 8:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



X. L. Bautista
Primary Examiner
Art Unit 2179

xlb
June 22, 2007